Application No.: unknown Preliminary Amendment

Attorney Docket: SOMMR-014US

Amendments to the Claims:

1. (amended) An electronic pointing or cursor control device comprising a first chamber

and a second chamber, wherein:

the two chambers are adjoined and separated by a fluid-tight separating wall;

the first chamber contains electronic components;

the second chamber comprises an aperture;

the second chamber contains a ball, the ball protruding through said aperture;

the said separating wall comprises an optically permeable region; and

the electronic components include optical detection means an optical detector directed

towards the optically permeable region and the ball, the detection means optical

detector being operable in use to detect motion of the ball and to generate electronic

signals representative of said motion.

2. (original) A device as claimed in Claim 1, wherein the first chamber is fluid-tight.

3. (amended) A device as claimed in Claim 1 or Claim 2, wherein the distance in the

second chamber between the surface of said optically permeable region and the

surface of the ball is sufficiently small such that any liquid between the ball and the

optically permeable region of the separating wall is thinly dispersed and does not

prevent optical transmission between the ball and the detection means optical

detector.

2

Application No.: unknown Preliminary Amendment

Attorney Docket: SOMMR-014US

4. (amended) A device as claimed in any preceding Claim Claim 3, wherein the distance in the second chamber between the surface of said optically permeable region and the surface of the ball is less than 1.5 mm.

- 5. (amended) A device as claimed in any-preceding-Claim Claim 1, wherein the detection means comprise optical detector comprises an optical lens, the focal depth of said lens being such as to ensure that, irrespective of the nature of any liquid between the ball and the optically permeable region of the separating wall, the detection means are optical detector is sufficiently focused to enable the device to operate.
- 6. (amended) A device as claimed in any preceding Claim Claim 1, wherein the separating wall is made of a translucent plastics material.
- 7. (original) A device as claimed in Claim 6, wherein the optically permeable region of the separating wall comprises a polished region of the said plastics material.
- 8. (amended) A device as claimed in any preceding Claim Claim 1, wherein the second chamber further comprises a drainage outlet.
- 9. (original) A device as claimed in Claim 8, wherein the second chamber further comprises a cleaning fluid inlet.
- 10. (amended) A device as claimed in any preceding Claim Claim 1, wherein the second chamber contains cleaning liquid.

Application No.: unknown Preliminary Amendment

Attorney Docket: SOMMR-014US

11. (amended) A device as claimed in any preceding Claim Claim 1, wherein the optical detection means are detector is mounted in a position substantially on a diametric line

though the ball normal to the mounting plane of the device.

12. (amended) A device as claimed in any of Claims 1 to 10 Claim 1, wherein the optical

detection means are detector is mounted at an angular position around the

circumference of the ball such that a radial line from the ball to the detection means

optical detector forms a non-zero angle with a diametric line though the ball normal

to the mounting plane of the device.

13. (amended) A device as claimed in Claim 12, wherein the optical detection means are

detector is mounted at an angular position around the circumference of the ball such

that a radial line from the ball to the detection means optical detector forms a non-

zero angle of between 0° and 20° with a diametric line though the ball normal to the

mounting plane of the device.

14. (amended) A device as claimed in Claim 12, wherein the optical detection means are

detector is mounted at an angular position around the circumference of the ball such

that a radial line from the ball to the detection means optical detector forms a non-

zero angle of between 20° and 50° with a diametric line though the ball normal to the

mounting plane of the device.

15. (amended) A device as claimed in Claim 14, further comprising processing means a

processor configured to apply vector transformations to the signals generated by the

Application No.: unknown Preliminary Amendment

Attorney Docket: SOMMR-014US

detection means optical detector in order to compensate for the angular position at which the detection means are optical detector is mounted.

16. (amended) A device as claimed in Claim 12, wherein the optical detection means are detector is mounted at an angular position around the circumference of the ball such that a radial line from the ball to the detection means optical detector forms an angle of substantially 90° with a diametric line though the ball normal to the mounting plane of the device.

(amended) A device as claimed in Claim 16, wherein the optical detection means 17. eemprise two detector is one of two such optical detectors mounted in mutually orthogonal positions with respect to said diametric line.

18. (amended) A device as claimed in any preceding Claim Claim 1 being a trackball.

19. (amended) A device as claimed in any of Claims 1 to 8 or Claims 11 to 17 Claim 1 being a mouse.

20 - 38 (cancelled)